

What is Claimed:

1. A connector for use in a model train, comprising:
 - a first coupling member associated with a first model train car;
 - a second coupling member associated with a second model train car, wherein said second coupling member is configured for engagement with said first coupling member;
 - 5 a first layer of electrically conductive material connected to a first circuit and disposed upon the surface of said first coupling member; and
 - a second layer of electrically conductive material connected to a second circuit and disposed upon the surface of said second coupling member, so as to result in said first and second model train cars being mechanically and electrically connected when said first and
 - 10 second coupling members are engaged with each other.
2. A connector in accordance with claim 1 wherein said first and second layers of electrically conductive material are comprised of a flexible electrically conductive material.
3. A connector in accordance with claim 1 wherein said first and second layers of electrically conductive material further include a plurality of electrically conductive elements.
4. A connector in accordance with claim 3 wherein said plurality of electrically conductive elements are separated by a plurality of intervening portions of insulation.
5. A connector in accordance with claim 1 further comprising:
 - a first layer of insulating material disposed between said first layer of electrically conductive material and the surface of said first coupling member; and
 - a second layer of insulating material disposed between said second layer of
 - 5 electrically conductive material and the surface of said second coupling member.

6. A connector in accordance with claim 1 wherein:

said first coupling member includes a horizontal portion having a top and a bottom side, and a vertical portion having an inner and an outer side, wherein said vertical portion is located at a distal end of said horizontal portion and is configured so as to be perpendicular thereto, thereby forming a drawbar; and

said second coupling member includes a top and a bottom side and is configured horizontally so as to be parallel with said horizontal portion of said first member, said second coupling member further including an aperture therein at a distal end of said second coupling member, said aperture being configured to receive said vertical portion of said first coupling member.

7. A connector in accordance with claim 6 wherein said first and second layers of electrically conductive material further include a plurality of electrically conductive elements.

8. A connector in accordance with claim 7 wherein said plurality of electrically conductive elements are separated by a plurality of intervening portions of insulation.

9. A connector in accordance with claim 6 wherein:

said first layer of conductive material is continuously disposed on said top side of said horizontal portion and said outer side of said vertical portion of said first coupling member; and

said second layer of conductive material is disposed on said bottom side of said second coupling member, said second layer further including an arcuate portion extending from said bottom side of said second coupling member to said first layer of electrically conductive material when said first and second coupling members are engaged.

10. A connector in accordance with claim 9 further comprising:

a first insulating layer disposed between said first electrically conductive layer and said top side and outer side of said horizontal and vertical portions of said first coupling member; and

a second insulating layer disposed between said second electrically conductive layer and said bottom side of said second coupling member.

11. A connector in accordance with claim 1 wherein said first coupling member is attached to the rear end of said first model train car and said second coupling member is attached to the front end of said second model train car so as to form a train when said first and second train cars are connected.

12. A connector in accordance with claim 1 wherein each of said first and second coupling members are formed in the shape of the letter “C” and configured so as to be interlocking when said first and second coupling members are engaged with each other, each of said first and second “C” shaped coupling members further having an inner and an outer
5 surface.

13. A connector in accordance with claim 12 wherein said first and second layers of said electrically conductive material are disposed on a portion of the surface of each of said first and second “C” shaped coupling members so as to be in electrical contact when said coupling members are engaged.

14. A connector in accordance with claim 13 further comprising:
a first layer of insulating material disposed between said inner surface of said first coupling member and said first layer of electrically conductive material; and
a second layer of insulating material disposed between said inner surface of
5 said second coupling member and said second layer of electrically conductive material.

15. A connector in accordance with claim 13 wherein each of said first and second layers of electrically conductive material include a plurality of electrically conductive elements.

16. A connector in accordance with claim 15 wherein said plurality of electrically conductive elements are separated by a plurality of intervening portions of insulating material.

17. A connector in accordance with claim 12 wherein said first coupling member is attached to the rear end of said first model train car and said second coupling member is attached to the front of said second model train car so as to form a train when said first and second train cars are connected.

18. A method of powering an electric model train, comprising the steps of:
providing a power source;
providing a plurality of model train cars wherein at least one of said train cars
is in electrical contact with said power source; and

5 coupling two of said plurality of train cars together to form a train using a
single coupler that is operative to both electrically and mechanically couple each train car to
the next adjacent train car in said train.

19. A method in accordance with claim 18 wherein said providing a plurality of
model train cars step further includes providing a plurality of train cars wherein a first car in
said train has a first coupling member attached to the rear end thereof, and a second car in
said train has a second coupling member attached to the front end thereof so as to allow for
5 the connection of said first car and said second car together, said second car further having
said first coupling member attached to the rear end thereof so as to allow said second car to
be coupled to a third car having said second coupling member attached to the front end
thereof.

20. A method in accordance with claim 19 wherein said providing a plurality of
model train cars step further includes the substep of disposing a first and second layer of
electrically conductive material on the surfaces of said first and second coupling members,
respectively, so as to create an electrical connection between said first and second train cars
5 when said first and second coupling members are engaged together.

21. A method in accordance with claim 20 wherein said disposing step includes
disposing a first and second layer of electrically conductive material wherein said first and
second layers are configured to have a plurality of electrically conductive portions so as to
create a plurality of electrical connections between said first and second cars of said train
5 when said first and second coupling members are engaged together.

22. A method in accordance with claim 20 further comprising the substep of
affixing a first and second layer of insulating material between said surface of said first and
second coupling members and said first and second layers of electrically conductive material,
respectively.

23. A method in accordance with claim 20 further comprising the steps of:
electrically connecting said first layer of electrically conductive material to a
first circuit; and
electrically connecting said second layer of electrically conductive material to
5 a second circuit.

24. A method in accordance with claim 23 wherein said step of electrically
connecting said first layer of electrically conductive material to a first circuit includes
electrically connecting said first electrically conductive layer to said power source.